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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/825,487	HOTTA, YUUICHI
	Examiner Adolf DSouza	Art Unit 2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 April 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 - 20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 - 5, 7 - 8, 10 - 16, 18 - 19 is/are rejected.
- 7) Claim(s) 6, 9, 17 and 20 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 April 2004 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ATM network (claim 19) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 2 - 4 and 6 are objected to because of the following informalities:

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- Regarding claims 2 - 4, the acronyms 1000BASE-X, XAUI, SGMII should be defined.
- Regarding claim 6 (2nd line), "receive data each of a plurality" should be changed to "receive data on each of a plurality"

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4 - 7, 21, 29 – 31 are rejected under 35 U.S.C. 102(b) as being anticipated by IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017).

Regarding claim 1, IEEE 802.3 discloses a device comprising:

a data transceiver adapted to be coupled to one or more data lanes of a device-to-device interconnection (DDI) (page 698, Figure 28-1; page 965, Figure 36-2; wherein the transceiver is formed by the transmit and receive functions shown and the data lanes are the MDI and GMII interfaces);

a negotiation section comprising (page 698, Fig. 28-1 "Auto-Negotiation Functions"):

logic to detect 8B/10B code groups on each data lane of the DDI (page 966, section 36.2.3 - 36.2.4.1; page 967, Fig. 36-3, element 8B/10B decoder);

and configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups (page 698, section 28.1.1, especially 2nd paragraph, 1st 2 lines which states "the auto-negotiation section provides the means to exchange information and configure both devices").

Regarding claim 2, IEEE 802.3 discloses the negotiation section further comprises logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a 1000BASE-X data transmission mode in response to detecting 8B/10B code groups on a single data lane (page 962, section 36; wherein the 2nd paragraph states that 8B/10B coding is used and the 8B/10B codes are decoded as in claim 1).

Regarding claim 4, IEEE 802.3 discloses the negotiation section further comprises logic to selectively configure the data transceiver to transmit and receive data on the DDI according to an SGMII data transmission mode in response to detecting 8B/10B code groups on a single data lane (page 965, section 36.2.1 - page 966, section 36.2.4; wherein the SGMII interface is the GMII interface with S just indicating serial transmission).

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Claims 5 and 6 are similarly analyzed as claims 2 and 4 respectively with the detection being done for several data lanes.

Regarding claim 7, IEEE 802.3 discloses the data transceiver is capable of operating in one or more data transmission modes (page 698, section 28.1.1, 3rd paragraph, last 3 lines; wherein the multiple transmission modes are the 10BASE-T, 100BASE-TX, ... modes), and wherein the negotiation circuit further comprises logic to transmit a link pulse signal on at least one data lane in the DDI during the negotiation period to identify the one or more data transmission modes (page 698, 2nd and 4th paragraphs; page 702, section 28.2.1.1).

Claim 21 is directed to method/steps of the same subject matter claimed in apparatus claim 1 and therefore, is rejected as explained in the rejection of claim 1 above.

Regarding claim 29, IEEE 802.3 discloses a system comprising:

a physical layer communication device to transmit data between a transmission medium and a media independent interface (MII) (page 700, Fig. 28-2; wherein the physical layer device is shown as PHY);

and a communication device comprising: a data transceiver adapted to be coupled to one or more lanes of a DDI, the data transceiver being coupled to the MII to transmit data between the MII and the DDI (page 700, Fig. 28-2; wherein the transceiver is shown as the PHY layer device which is coupled to the MII).

All other limitations of claim 29 are as analyzed in claim 1 above.

Regarding claim 30, IEEE 802.3 discloses the physical layer communication device is adapted to transmit data between the MII and a fiber optic cable (page 962, 1st paragraph, 5th line).

Regarding claim 31, IEEE 802.3 discloses the physical layer communication device is adapted to transmit data between the MII and a twisted wire pair cable (page 698, section 28 Title; page 700, Fig. 28-2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 8 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in view of IEEE 2002 (May 1, 2002, which Applicant has provided in his IDS in the parent application 10,291,017).

Regarding claim 3, IEEE 802.3 discloses the negotiation section further comprises logic to selectively configure the data transceiver to transmit and receive data on the DDI in response to detecting 8B/10B code groups on four data lanes.

IEEE 802.3 does not disclose that the transmission mode is XAUI data transmission mode.

In the same field of endeavor, however, IEEE 2002 discloses an XAUI data transmission mode (page 296, Fig. 47-1; section 47.1, lines 3 - 51).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by IEEE 2002, in the system of IEEE 802.3 because this would allow the XAUI data transmission mode (10 Gigabit) to be implemented, as disclosed by IEEE 2002.

Regarding claim 8, IEEE 802.3 does not disclose the data transceiver circuit is adapted to be coupled to at least one differential pair corresponding to at least one of the data lanes.

In the same field of endeavor, however, IEEE 2002 discloses the data transceiver circuit is adapted to be coupled to at least one differential pair corresponding to at least one of the data lanes (page 299, paragraph 47.3.1 - 47.3.2).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by IEEE 2002, in the system of IEEE 802.3 because this would allow the advantages of differential signaling to be used, as is well known in the art.

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Regarding claim 9, IEEE 802.3 discloses the DDI is formed in a printed circuit board comprising a pair of copper traces for each differential pair (page 962, section 36.1.2, line (e); wherein the differential pair is as analyzed in claim 8 above).

7. Claims 10, 13, 15, 18, 22 – 23, 26, 32 - 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in view of Feuerstraeter (US 6,169,729).

Regarding claim 10, IEEE 802.3 discloses a device comprising:

a data transceiver adapted to be coupled to one or more data lanes of a device-to-device interconnection (DDI) (page 698, Figure 28-1; page 965, Figure 36-2; wherein the transceiver is formed by the transmit and receive functions shown and the data lanes are the MDI and GMII interfaces);

and a negotiation section comprising (page 698, Fig. 28-1 "Auto-Negotiation Functions").

IEEE 802.3 does not disclose and base page and a next page transmitted.

In the same field of endeavor, however, Feuerstraeter discloses:

logic to transmit a Base Page message in the DDI (Fig. 4, element 402; column 3, lines 46 - 52);

and logic to transmit a Next Page message in the DDI following transmission of the Base Page message, the Next Page message specifying one or more available data transmission modes for transmitting the Ethernet frames in the DDI (Fig. 4, element 402; column 3, lines 46 – 52; column 12, lines 43 – 55, especially lines 53 – 55; which indicate the transmission mode).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Feuerstraeter, in the system of IEEE 802.3 because this would allow the network connection to be determined, as disclosed by Feuerstraeter (column 3, lines 46 – 52).

Regarding claim 13, IEEE 802.3 discloses the data transceiver further comprises a physical medium attachment (PMA) section and a physical coding sublayer (PCS) corresponding to each of the plurality of data transmission modes (page 700, Fig. 28-2, elements PMA and PCS), and wherein the configuration logic comprises logic to enable the PMA and PCS sections associated with the selected data transmission mode (page 701, section 28.2, 1st 2 paragraphs).

Regarding claim 15, IEEE 802.3 discloses the data transceiver is capable of operating in one or more data transmission modes (page 698, section 28.1.1, 3rd paragraph, last 3 lines; wherein the multiple transmission modes are the 10BASE-T, 100BASE-TX, ... modes), and wherein the negotiation circuit further comprises logic to transmit a link pulse signal on at least one data lane in the DDI during the negotiation period to identify

the one or more data transmission modes (page 698, 2nd and 4th paragraphs; page 702, section 28.2.1.1).

Regarding claim 18, IEEE 802.3 discloses the configuration logic comprises logic to selectively configure the data transceiver to transmit and receive data to a plurality of ports couple to the DDI in response to the link pulse signal (page 698, section 28.1.1, 3rd paragraph, last 3 lines; wherein the multiple transmission modes are the 10BASE-T, 100BASE-TX, ... mode; page 698, 2nd and 4th paragraphs; page 702, section 28.2.1.1; wherein the link pulse signal identifies the transmission mode).

Claim 22 is similarly analyzed as limitations in claim 10.

Regarding claim 23, IEEE 802.3 discloses a system comprising:

a media access controller comprising a media independent interface (MII) (page 700, Fig. 28-2);

and a communication device (page 700, Fig. 28-2; the communication device being the PHY layer device) comprising: a data transceiver adapted to be coupled to one or more lanes of a DDI, the data transceiver being coupled to the MII to transmit data between the MII and the DDI (page 700, Fig. 28-2);

and a negotiation section comprising (page 698, Fig. 28-1 "Auto-Negotiation Functions"): logic to detect 8B/10B code groups on each data lane of the DDI (page 966, section 36.2.3 - 36.2.4.1; page 967, Fig. 36-3, element 8B/10B decoder);

and configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups (page 698, section 28.1.1, especially 2nd paragraph, 1st 2 lines which states "the auto-negotiation section provides the means to exchange information and configure both devices).

Claim 26 is similarly analyzed as limitations in claims 10 and 23.

Regarding claim 32, IEEE 802.3 discloses a system comprising:

a physical layer communication device to transmit data between a transmission medium and a media independent interface (MII) (page 700, Fig. 28-2).

All other limitations of claim 32 are as analyzed in claims 10 and 23 above.

Regarding claim 33, IEEE 802.3 discloses the physical layer communication device is adapted to transmit data between the MII and a fiber optic cable (page 962, 1st paragraph, 5th line).

Regarding claim 34, IEEE 802.3 discloses the physical layer communication device is adapted to transmit data between the MII and a twisted wire pair cable (page 698, section 28 Title; page 700, Fig. 28-2).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in

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view of Feuerstraeter (US 6,169,729) and further in view of Chang et al. (US 20020091884).

Regarding claim 11, IEEE 802.3 does not disclose a transmission mode for a single data lane and a transmission mode for four data lanes.

In the same field of endeavor, however, Feuerstraeter discloses Next Page message comprises at least a first bit indicating an availability of a first data transmission mode using a single data lane in the DDI (column 14, lines 27 – 49; wherein the single data lane is interpreted as part of the full duplex system 800).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Feuerstraeter, in the system of IEEE 802.3 because this would allow the transmission mode to be determined, as is well known in the art.

In the same field of endeavor, however, Chang discloses a second bit indicating an availability of a second data transmission mode using four data lanes (Fig. 1; paragraphs 111 - 113).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Chang, in the system of IEEE 802.3 because this would allow the transmission mode to be determined for multiple lanes, as is well known in the art.

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9. Claims 12, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in view of IEEE 2002 (May 1, 2002, which Applicant has provided in his IDS in the parent application 10,291,017) and further in view of Chang et al. (US 20020091884).

Regarding claim 12, IEEE 802.3 discloses the Next Page message comprises at least a first bit indicating an availability of a 1000BASE-X data transmission mode (page 962, section 36.1.1).

IEEE 802.3 does not disclose the XAUI data transmission mode.

In the same field of endeavor, however, IEEE 2002 discloses a second bit indicating a XAUI data transmission mode (page 296) and a third bit indicating a 10 Gbps data transmission mode over a single data lane (page 310).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by IEEE 2002, in the system of IEEE 802.3 because this would allow multiple transmission modes, as is well known in the art.

Regarding claim 14, IEEE 802.3 discloses at least one of 1000BASE-X and serial gigabit media independent interface (SGMII) (page 962, which discloses the 1000BASE-X).

IEEE 802.3 does not disclose XAUI mode.

In the same field of endeavor, however, IEEE 2002 discloses the configuration logic comprises logic to selectively configure the data transceiver circuit to transmit and receive data on the DDI in a data transmission mode according to either 10 gigabit attachment unit interface (XAUI) (page 296, page 310).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by IEEE 2002, in the system of IEEE 802.3 because this would allow multiple transmission modes, as is well known in the art.

Regarding claim 16, IEEE 802.3 does not disclose the data transceiver circuit is adapted to be coupled to at least one differential pair corresponding to at least one of the data lanes.

In the same field of endeavor, however, IEEE 2002 discloses the data transceiver circuit is adapted to be coupled to at least one differential pair corresponding to at least one of the data lanes (page 299, paragraph 47.3.1 - 47.3.2).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by IEEE 2002, in the system of IEEE 802.3 because this would allow the advantages of differential signaling to be used, as is well known in the art.

Regarding claim 17, IEEE 802.3 discloses the DDI is formed in a printed circuit board comprising a pair of copper traces for each differential pair (page 962, section 36.1.2, line (e); wherein the differential pair is as analyzed in claim 8 above).

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in view of Conoscenti et al. (US 5,627,836).

Regarding claim 19, IEEE 802.3 discloses a system comprising:

a data transceiver coupled to one or more data lanes of a device-to-device interconnection (DDI) (page 698, Figure 28-1; page 965, Figure 36-2; wherein the transceiver is formed by the transmit and receive functions shown and the data lanes are the MDI and GMII interfaces);

a negotiation section comprising (page 698, Fig. 28-1 "Auto-Negotiation Functions"): logic to detect 8B/10B code groups on each data lane of the DDI; and configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups (page 966, section 36.2.3 - 36.2.4.1; page 967, Fig. 36-3, element 8B/10B decoder).

IEEE 802.3 does not disclose an ATM network, subscriber client terminals and an ATM distribution node.

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In the same field of endeavor, however, Conoscenti discloses:

an ATM network to provide one or more ATM services (Abstract; Fig. 1; column 5, lines 12 - 26);

a plurality of subscriber client terminals, each subscriber client terminal being capable of receiving one or more ATM services from the ATM network (Fig. 1; column 5, lines 12 - 26);

and an ATM distribution node (column 5, lines 20 – 27).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Conoscenti, in the system of IEEE 802.3 because this would allow the data to be transmitted over an ATM network, as is well known in the art.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in view of Feuerstraeter (US 6,169,729) and further in view of Conoscenti et al. (US 5,627,836).

Regarding claim 20, IEEE 802.3 discloses a data transceiver coupled to one or more data lanes of a device-to-device interconnection (DDI) (page 698, Figure 28-1; page

965, Figure 36-2; wherein the transceiver is formed by the transmit and receive functions shown and the data lanes are the MDI and GMII interfaces);
a negotiation section (page 698, Fig. 28-1 "Auto-Negotiation Functions"): comprising:
IEEE 802.3 does not disclose an ATM network, subscriber client terminals and an ATM distribution node.

In the same field of endeavor, however, Conoscenti discloses:

an ATM network to provide one or more ATM services (Abstract; Fig. 1; column 5, lines 12 - 26);

a plurality of subscriber client terminals, each subscriber client terminal being capable of receiving one or more ATM services from the ATM network (Fig. 1; column 5, lines 12 - 26);

and an ATM distribution node (column 5, lines 20 – 27).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Conoscenti, in the system of IEEE 802.3 because this would allow the data to be transmitted over an ATM network, as is well known in the art.

In the same field of endeavor, however, Feuerstraeter discloses:

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logic to transmit a Base Page message in the DDI (Fig. 4, element 402; column 3, lines 46 - 52);

and logic to transmit a Next Page message in the DDI following transmission of the Base Page message, the Next Page message specifying one or more available data transmission modes for transmitting the Ethernet frames in the DDI (Fig. 4, element 402; column 3, lines 46 – 52; column 12, lines 43 – 55, especially lines 53 – 55; which indicate the transmission mode).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Feuerstraeter, in the system of IEEE 802.3 because this would allow the network connection to be determined, as disclosed by Feuerstraeter (column 3, lines 46 – 52).

12. Claims 24 – 25, 27 - 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE 802.3 (which Applicant has provided in his IDS in the parent application 10,291,017) in view of view of Feuerstraeter (US 6,169,729) and further in view of Liang (US 5,889,776).

Regarding claim 24, IEEE 802.3 does not disclose the switch fabric coupled to the MAC.

In the same field of endeavor, Liang discloses the system further comprises a switch fabric coupled to the MAC (column 3, lines 49 – 54; wherein the switch fabric would be coupled to the MAC if the MAC were in the switch fabric).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Liang, in the system of IEEE 802.3 because this would allow the MAC to control the switch fabric to disengage the link when needed, as disclosed by Liang.

Regarding claim 25, IEEE 802.3 does not disclose a packet classification device coupled to the MAC.

In the same field of endeavor, Liang discloses the system further comprises a packet classification device coupled to the MAC (column 9, lines 28 - 29).

Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the method, as taught by Liang, in the system of IEEE 802.3 because this would allow the MAC to process the packets, as is well known in the art.

Claim 27 – 28 are similarly analyzed as claims 24 – 25 respectively.

Other Prior Art Cited

13. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

The following patents are cited to further show the state of the art with respect to Ethernet systems:

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Wakeley et al. (US 6,198,727) discloses a Method and apparatus for providing 10Base-T/100Base-TX link assurance.

Azadet et al. (US 20010034729) discloses Simple link protocol providing low overhead coding for LAN serial and WDM solutions.

Andra et al. (US 6,349,331) discloses multiple channel communication system with shared autonegotiation controller.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolf DSouza whose telephone number is 571-272-1043. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adolf DSouza
Examiner
Art Unit 2611



AD

David C. Payne
DAVID C. PAYNE
SUPERVISORY PATENT EXAMINER